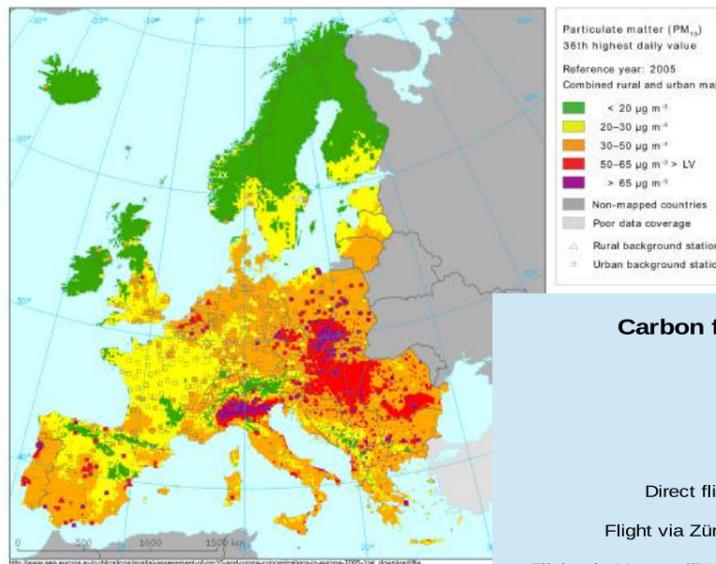# Ecological footprints of travelling

European projects are mostly including "mobilities". But the reverse of the coin is the ecological destruction caused by this travelling and the impact on the society.

Nitric oxide and fine particles are harmful to those living in towns or close to busy roads. The carbon emissions of traffic are causing climate change on the planet with dramatic consequences for humans and nature all over the world. Without a rapid change in consumer and travel behavior the world is heading dramatic ecological disasters and the ensuring conflicts.
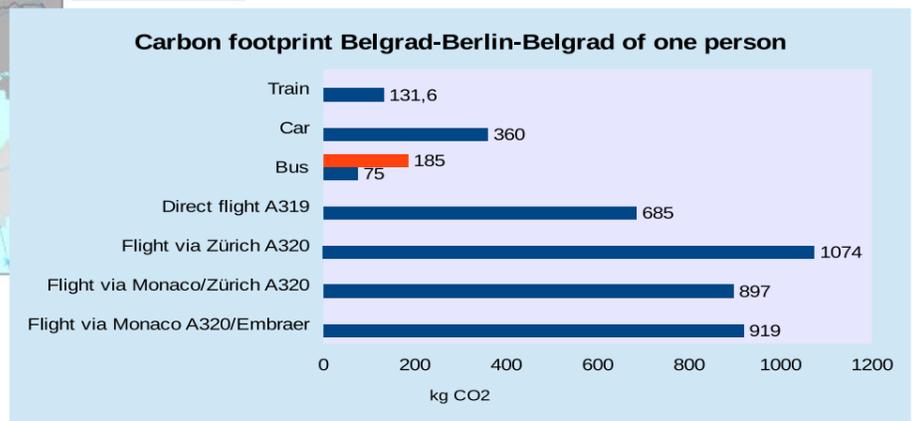
In exercising our responsibility as organizers of mobility projects *solar e.V.* and *OBUK e.V.* decided to implement a travel policy for their projects to reduce the ecological destruction caused by our projects.


Air pollution in Europe

Travelling in comparison

We compared the ecological impact of different means of transportation. **Aviation** has the by-far **worst ecological footprint**, followed by individual travel with the car. **The best choice is always the bus or train** with a **up to 10-times lower carbon-footprint**. Another effect of traffic is air-pollution and noise.

Carbon footprint Belgrad-Berlin-Belgrad of one person

	kg CO2
Train	131,6
Car	360
Bus	75 / 185
Direct flight A319	685
Flight via Zürich A320	1074
Flight via Monaco/Zürich A320	897
Flight via Monaco A320/Embraer	919

Threefold climate impact of flights

The aviation industry does not tire to emphasize that their planes get-ting cleaner and thriftier. But regularly they forget to mention, that scientists estimate the climate impact of aviation 1,9 to 4,7 times higher than ground-traffic. This is caused by the emission of water vapour, sulphate, soot, particles, CO_2 and nitrous gases in high altitudes. Science largely agreed to use factor 3 until more precise findings.
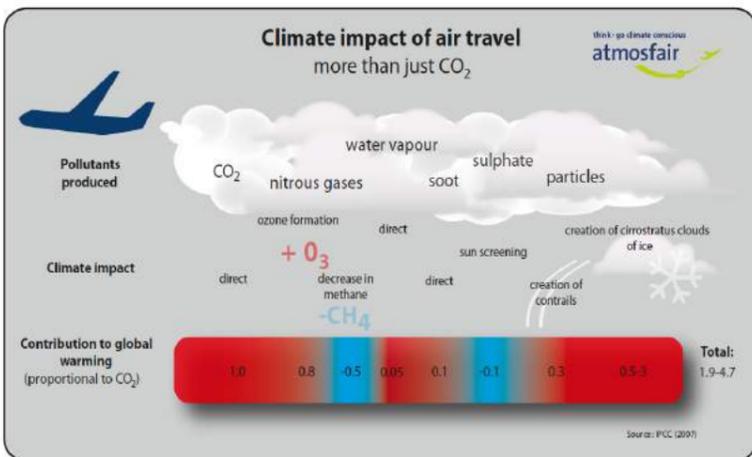
Everyone who lived close to an airport or highway knows this problem. It's is strongly effecting our health. The most effective way to reduce this impacts is to minimize the travelling distance. Regarding aviation stop-over-avoidance as well as choosing airlines with modern aircrafts has the biggest impact. This is why we make train- and bus-travelling as well as direct flights with eco-friendly airlines compulsory.

Aviation best practice

But ravelling with bus or train is not always appropriate. For distances greater than 1000 km aviation is often hard to avoid, so that we imposed standards for this as well.

The charitable organisation *atmosfair* is monitoring the aviation industry continuously. They are publishing the annually report *Atmosfair Airline Index* on the climate impact of the airlines. According to our ecological targets we limited the choice of airlines to the categories A-C of the index.

The graphic compares the climate impact of typical flights with other CO_2 emissions and suggests travelling principles. Beside that Atmosfair supports climate projects in developing countries to "compensate" flights.
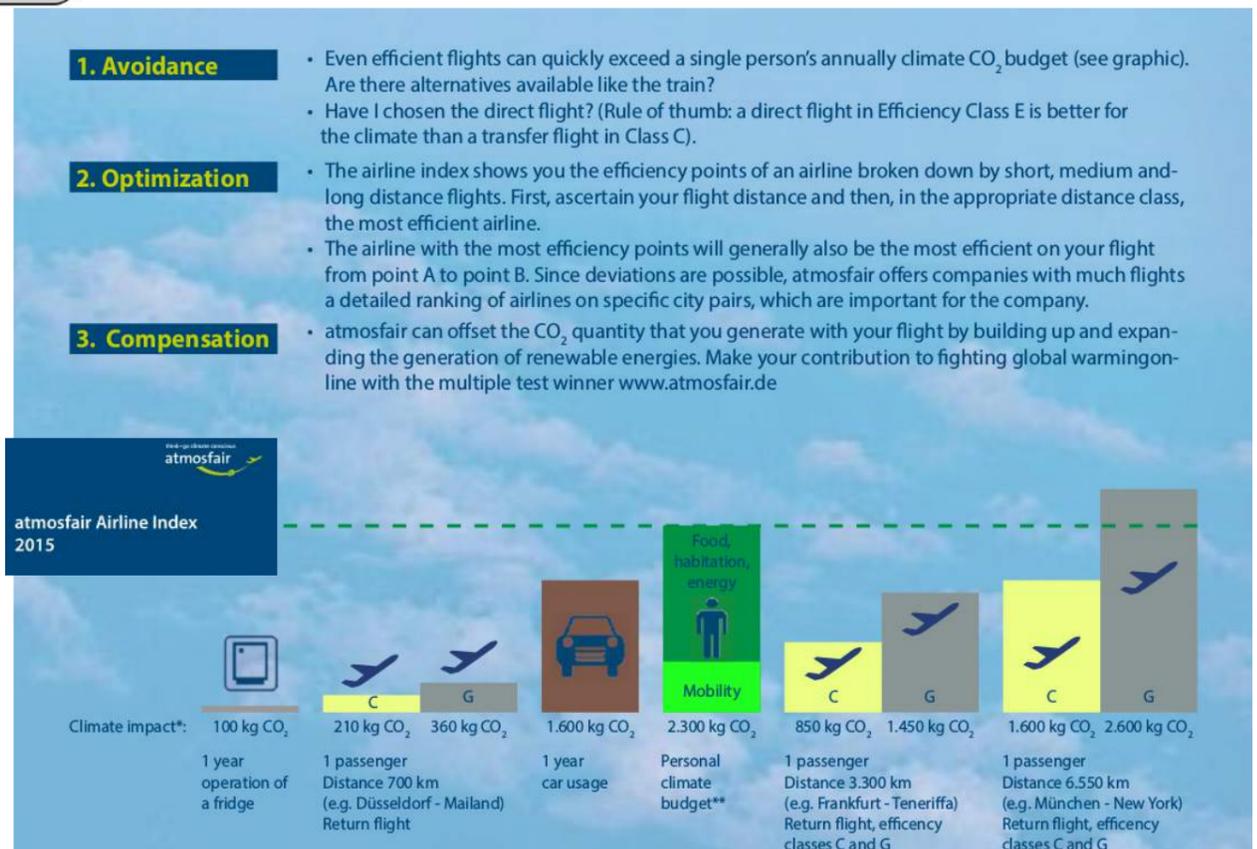
1. Avoidance
- Even efficient flights can quickly exceed a single person's annually climate CO_2 budget (see graphic). Are there alternatives available like the train?
- Have I chosen the direct flight? (Rule of thumb: a direct flight in Efficiency Class E is better for the climate than a transfer flight in Class C).

2. Optimization
- The airline index shows you the efficiency points of an airline broken down by short, medium and-long distance flights. First, ascertain your flight distance and then, in the appropriate distance class, the most efficient airline.
- The airline with the most efficiency points will generally also be the most efficient on your flight from point A to point B. Since deviations are possible, atmosfair offers companies with much flights a detailed ranking of airlines on specific city pairs, which are important for the company.

3. Compensation
- atmosfair can offset the CO_2 quantity that you generate with your flight by building up and expanding the generation of renewable energies. Make your contribution to fighting global warmingon-line with the multiple test winner www.atmosfair.de

http://atmosfair.de